

What is claimed is:

1. A surface tension control agent for coating materials comprising:
a fluorine-containing (meth)acryl type copolymer obtained by
5 copolymerization of monomers comprising
a fluorine-substituted alkyl (meth)acrylate monomer (A);
an alkyl (meth)acrylate monomer (B); and
a hydroxyl group- or ether group-containing alkyl (meth)acrylate
monomer (C),
10 wherein the ratio of (A) to {(B)+(C)} in the copolymer is in the range of 3-60
parts by weight to 40-97 parts by weight.
2. The surface tension control agent according to Claim 1, wherein
the fluorine-containing (meth)acryl type copolymer is a copolymer
15 obtained by copolymerization of monomers comprising:
the monomer (A);
the monomer (B);
the monomer (C); and
at least one kind of vinyl monomer (D) selected from the group
20 consisting of styrene, alkyl vinyl ether, alpha-olefin and maleic anhydride.
3. The surface tension control agent according to Claim 1, wherein a
weight-average molecular weight of the fluorine-containing
(meth)acrylate copolymer is in the range of 1,500-300,000.
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4. The surface tension control agent according to Claim 1, wherein

the monomer (A) is an alkyl (meth)acrylate having a perfluoro alkyl group with 2-18 carbon atoms.

5 5. The surface tension control agent according to Claim 1, wherein the monomer (B) is an alkyl (meth)acrylate having an alkyl group with 1-30 carbon atoms.

10 6. The surface tension control agent according to Claim 1, wherein the monomer (C) is at least one kind of a hydroxyl group- or ether group-containing alkyl (meth)acrylate represented by the following formula (1)



(where R¹ is hydrogen atom or methyl group; -A is a hydroxyl alkyl group with 2-4 carbon atoms or an alkyl substituent thereof, an alkyl monoalkylene glycol group having an alkyl group with 1-18 carbon atoms, an alkyl polyalkylene glycol group having an alkyl group with 1-18 carbon atoms, an alkenyl monoalkylene glycol group having an alkenyl group with 2-18 carbon atoms, or an alkenyl group-substituted polyalkylene glycol group having an alkenyl group with 2-18 carbon atoms).

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7. A coating material comprising:

a surface tension control agent for coating materials, which comprises a fluorine-containing (meth)acryl type copolymer obtained by copolymerization of monomers comprising

25 a fluorine-substituted alkyl (meth)acrylate monomer (A);
an alkyl (meth)acrylate monomer (B); and

a hydroxyl group- or ether group-containing alkyl (meth)acrylate monomer (C),

wherein the ratio of (A) to {(B)+(C)} in the copolymer is in the range of 3-60 parts by weight to 40-97 parts by weight.

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8. The coating material according to Claim 7, wherein the fluorine-containing (meth)acrylate type copolymer is a copolymer obtained by copolymerization of monomers comprising:

the monomer (A);

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the monomer (B);

the monomer (C); and

at least one kind of vinyl monomer (D) selected from the group consisting of styrene, alkyl vinyl ether, alpha-olefin and maleic anhydride.

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9. The coating material according to Claim 7, wherein the weight-average molecular weight of the fluorine-containing (meth)acryl type copolymer is in the range of 1,500-300,000.

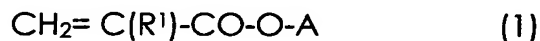
10. The coating material according to Claim 7, wherein the monomer (A) is an alkyl (meth)acrylate having a perfluoroalkyl group with 2-18 carbon atoms.

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11. The coating material according to Claim 7, wherein the monomer (B) is an alkyl (meth)acrylate having an alkyl group with 1-30 carbon atoms.

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12. The coating material according to Claim 7, wherein the monomer (C) is at least one kind of hydroxyl group- or ether group-containing alkyl (meth)acrylate represented by the following formula (1)



5 (where R¹ is hydrogen atom or methyl group; -A is a hydroxy alkyl group with 2-4 carbon atoms or an alkyl substituent thereof, an alkyl monoalkylene glycol group having an alkyl group with 1-18 carbon atoms, an alkyl polyalkylene glycol group having an alkyl group with 1-18 carbon atoms, an alkenyl monoalkylene glycol group having an alkenyl group
10 with 2-18 carbon atoms, or an alkenyl group-substituted polyalkylene glycol group having an alkenyl group with 2-18 carbon atoms).

13. The coating material according to Claim 7, wherein the coating material further comprises an acrylic resin.